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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,841	06/23/2003	Andrew D. Roberts	032026-0731	9538
23524	7590	12/08/2006		
FOLEY & LARDNER LLP 150 EAST GILMAN STREET P.O. BOX 1497 MADISON, WI 53701-1497			EXAMINER PERREIRA, MELISSA JEAN	
			ART UNIT 1618	PAPER NUMBER

DATE MAILED: 12/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/601,841

Applicant(s)

ROBERTS ET AL.

Examiner

Melissa Perreira

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/19/06</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Information Disclosure Statement*

The information disclosure statements filed 6/19/06 contain minor informalities, such as the class and subclass is not listed for the patents to be considered.

### *Response to Arguments*

Claims 1-3 are pending in the application and claims 4 and 5 have been cancelled.

Applicant's arguments, see REMARKS, filed 11/15/06, with respect to ***Claim Rejections - 35 USC § 103***: claims 1-3 are rejected over Pike et al. (*Drug Metab. Dispos.* **1995**, 23, 832-839) in view of Roberts et al. (*Res. and Indus.* **1999**, 1006-1009, No 475) have been fully considered and are persuasive. The rejection of claims 1-3 has been withdrawn in light of the declarations supplied by Alexander K. Converse, Kevin A. Dabbs and Michael J. Schueller.

Applicant's arguments, REMARKS, filed 11/15/06, with respect to ***Claim Rejections - 35 USC § 103***: claim 1 is rejected over Ruth et al. (*J. of Rad. and Nuclear Chem.* **1996**, 203, 457-469) in view of Roberts et al. (*Res. and Indus.* **1999**, 1006-1009, No 475) have been fully considered and are persuasive. The rejection of claim 1 has been withdrawn in light of the declarations supplied by Alexander K. Converse, Kevin A. Dabbs and Michael J. Schueller.

Applicant's arguments filed 11/15/06 with respect to ***Claim Rejections - 35 USC § 103*** Pike et al. (*Drug Metab. Dispos.* **1995**, 23, 832-839) in view of Mulholland et al.

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(*J. Nuc. Med.* **1987**, 8,1082, posterboard 899) have been fully considered but they are not persuasive.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pike et al. (*Drug Metab. Dispos.* **1995**, 23, 832-839) in view of Mulholland et al. (*J. Nuc. Med.* **1987**, 8,1082, posterboard 899) as set forth in the office action mailed 5/17/06.

3. Applicant asserts that due to the short half-life of  $^{17}\text{F}$  it would be impossible to replace the  $^{18}\text{F}$  in the reactions of Pike with the  $^{17}\text{F}$  disclosed by Mulholland.

4. The instant claims are product claims and are not drawn to the methods of making such as product. Therefore it is inconsequential as to how the product would be synthesized. Pike et al. (*Drug Metab. Dispos.* **1995**, 23, 832-839) discloses an  $^{18}\text{F}$ -labeled HFA134a (1,1,1,2-tetrafluoroethane) product and Mulholland et al. (*J. Nuc. Med.* **1987**, 8,1082, posterboard 899) discloses an  $^{17}\text{F}$  fluoromethane product. It would be obvious to one ordinarily skilled in the art to substitute the  $^{18}\text{F}$  of the HFA134a (1,1,1,2-tetrafluoroethane) product with an  $^{17}\text{F}$  to generate an  $^{17}\text{F}$  -labeled 1,1,1,2-tetrafluoroethane. The advantages of using an  $^{17}\text{F}$  labeled fluoroalkane over an  $^{18}\text{F}$  labeled fluoroalkane is that the short half life and rapid decay of  $^{17}\text{F}$  makes it possible to

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collect images via PET in a shorter time period (6 sec as opposed to 12 sec) and provides for greater temporal resolution or precision of the measurements with respect to time. One would want to improve the properties of any product. Therefore, one would obviously choose to improve the properties of  $^{18}\text{F}$ -labeled HFA134a (1,1,1,2-tetrafluoroethane) imaging agent for its use in PET imaging. Substituting the radioactive isotope  $^{18}\text{F}$  for  $^{17}\text{F}$  would knowingly provide for this enhanced imaging property for PET imaging and would be an obvious choice.

### ***Conclusion***

No claims are allowed at this time.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

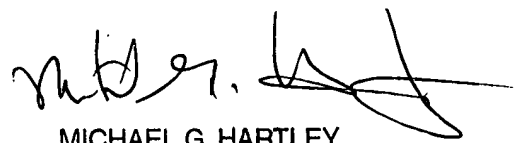
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Perreira whose telephone number is 571-272-1354. The examiner can normally be reached on 9am-5pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Hartley can be reached on 571-272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MP  
November 30, 2006



MICHAEL G. HARTLEY  
SUPERVISORY PATENT EXAMINER